FEB & 2005 WALL THE UNITED STATES PATENT AND TRADEMARK OFFICE

For IFW

In re Application of: Dario NERI et al.

Serial No.: 10/821,930 Group Art Unit: 1614

Filed: 12 April 2004 Examiner: Unknown

For: SPECIFIC BINDING MOLECULES FOR SCINTIGRAPHY, CONJUGATES CONTAINING THEM AND THERAPEUTIC METHOD FOR TREATMENT OF ANGIOGENESIS

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This information disclosure statement is made in accordance with 37 C.F.R. §§ 1.56, 1.97 and 1.98 as follows:

Timing and Fees

\boxtimes			F.R. § 1.97(b), no fee or statement is required for filing this information tement is filed:
			three months of the filing date of a national application other than a CPA § 1.53(d);
			three months of the actual filing date of the national phase of a PCT ation; OR
	\boxtimes	before RCE).	e the mailing of a first substantive office action (including after filing of an
			.R. § 1.97(c), this information disclosure statement is filed after the periods 7 C.F.R. § 1.97(b), but before the mailing date of:
			a final rejection under 37 C.F.R. 1.113;
			termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR

			a notice of allowance under 37 C.F.R. § 1.311; and
		is acco	ompanied by:
			the statement as specified in 37 C.F.R. § 1.97(e) set out below; OR
			a check covering the fee of \$180.00 under 37 C.F.R. § 1.17(p).
			R. § 1.97(d), this information disclosure statement is filed after the mailing lowing actions which have not been withdrawn:
			a final action under 37 C.F.R. § 1.113;
			termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR
			a notice of allowance under 37 C.F.R. § 1.311;
	AND	is filed o	on or before payment of the issue fee; AND is accompanied by:
			the statement as specified in 37 C.F.R. § 1.97(e) as set forth below, and the fee of \$180.00 under 37 C.F.R. § 1.17(p).
Statem	nents Ui	nder 37	C.F.R. 1.97(e)
			Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or
			No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.
Cited 1	<u>Materia</u>	<u>ls</u>	
	\boxtimes	ancesto	of materials listed but not attached were cited in benefit (35 U.S.C. § 120) or application Serial No. <u>09/512,082</u> , on Form 892 by the Examiner and/or 1449 by the applicant; see 37 C.F.R. § 1.98(d).
		-	s of materials listed but not attached were cited in an international search dated

		Copies of the materials listed are attached (except for the foregoing).
Non-	English	Language References
		An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).
		A foreign-language search report from a foreign patent office is provided, and pertinent parts are translated substantively below:
		 X = document of particular relevance when it is taken alone Y = document of particular relevance when it is combined with another such document
		A = document defining the general state of the art
		O = non-written disclosure
		P = intercalated document
		T = document cited to understand the theory or principle underlying the invention
		E = patent document which has the benefit of a date earlier than the filing date and which was published only on or after this filing date
		D = cited in the application
		L = cited for another reason
		& = publication of member of same patent family
		Translation of other relevant information on foreign search report
		[insert necessary translation here]
Other	Informa	ation
Other	momi	titon
Paym:	ent of Fe	ees Due (If Any):
	A chec	ck for \$ covering the fee identified above is attached.
	Please	charge to Deposit Account No. 13-3402 \$ for the fee identified above.

The Commissioner is hereby authorized to charge or credit any overpayment to Deposit Account #13-3402, two copies of this paper are attached for this purpose.

Respectfully submitted,

Anthony J. Zelano, Reg. No. 27,969

Attorney for Applicants

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
Arlington Courthouse Plaza I
2200 Clarendon Blvd. Suite 1400
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

Attorney Docket No.: ELLIS-0002-P02-C01

Date: February 7, 2005

AJZ:at

K:\Ellis-2\P2\c1\Information Disclosure Statement.doc

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

FEB 0 8 2005

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

	Complete if Known	
Application Number	10/821,930	
Filing Date	12 April 2004	
First Named Inventor	Dario NERI et al.	
Group Art Unit	1614	
Examiner Name	Unknown	
Attorney Docket Number	ELLIS-0002-P02-C01	

		, , , , , , , , , , , , , , , , , , , 	U.S. F	ATENT DOCUMENTS	
Examiner Initials *	Cite No.1	U.S. Patent Document Number	Kind Code ²	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
	1	5,734,025		KOMAI et al.	03-1998
	2	5,849,701		ROBERTS et al.	12-1998
	3	5,747,452		RUOSLAHTI et al.	05-1998
	4	5,837,813		RUOSLAHTI et al.	11-1998
	5	5,523,229		FEINBERG et al.	06-1996
	6	6,696,245		WINTER et al.	02-2004
	7	5,710,134		BOSSLET et al.	01-1998
	8	6,140,470		GAREN et al.	10-2000
	9	5,243,029		MATUSUURA et al.	09-07-1993
	10	5,648,485		DOLPHIN et al.	07-15-1997
	11	5,817,776		GOODMAN et al.	10-06-1998
	12	5,831,088		DOLPHIN et al.	11-03-1998
	13	5,843,156		SLEPIAN et al.	12-01-1998
	14	5,877,289		THORPE et al.	03-02-1999
	15	5,913,884		TRAUNER et al.	06-22-1999
	16	5,976,535		FRITZBERG et al.	11-02-1999
	17	6,004,555		THORPE et al.	12-21-1999
-	18	6,015,897		THEODORE et al.	01-18-2000
	19	6,036,955		THORPE et al.	03-14-2000
	20	6,051,230		THORPE et al.	04-18-2000
	21	6,093,399		THORPE et al.	07-25-2000
	L				

	· · · · · · · · · · · · · · · · · · ·			FOREIG	N PATENT DOCUMENTS			
			Foreign Patent Docu	ment		Date of Publication of	Pages, Columns, Lines, Where Relevant	
Examiner Initials*	Cite No.1	Office ³	Number⁴	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T ⁶
	22	wo	9958570		Dario NERI et al.	10-18-1999		
	23	wo	0162800		Dario NERI et al.	08-30-2001		
	24	JP	0276598		SEKIGUCHI et al.	03-15-1990		4
	25	JP	4169195		SEKIGUCHI et al.	06-17-1992		4
	26	wo	9745544		Medical Res Council	12-04-1997		
	27	wo	96/23816		CREIGHTON et al.	08-08-1996		
	28	EP	344134		ZARDI et al.	11-29-1989		
	29	EP	184187		KUDO et al.	06-11-1986		
	30	EP	239400		WINTER et al.	09-30-1987		
	31	EP	0120694	1	BOSS et al.	10-03-1984	-	

			to ten a c					
	32	wo	4/13804	4	HOLLIGER et al.	06-23-1994		
	33	wo	93(14161	ABEN	WHITLOW et al.	06-10-1993		
	34	GB	2188638		NEUBERGER et al.	10-07-1987		
	35	EP	93(14161 2188638 0125023		CABILLY et al.	11-14-1984		
	36	EP	0760679		Dario NERI et al.	03-12-1997		
	37	EP	0211047		LAI et al.	02-25-1987		
	38	EP	0371998		ROBINSON et al.	06-13-1990		
	39	EP	0396612		LEI et al.	11-14-1990		
	40	EP	0550400		ROBINSON et al.	07-07-1993		
-	41	EP	0731167		ROBINSON et al.	09-11-1996		
	_							
_								
	·							
-								
							·	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date Considered

Examiner Signature

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. Number refers to English language corresponding family member.

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO Complete if Known Application Number 10/821,930 **INFORMATION DISCLOSURE** 12 April 2004 Filing Date STATEMENT BY APPLICANT First Named Inventor Dario NERI et al. 1614 Group Art Unit (use as many sheets as necessary) Examiner Name Unknown ELLIS-0002-P02-C01 Sheet of Attorney Docket Number

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	42	TOMOHIKO FUKUDA ET AL., "Mice lacking the EDB segment of fibronectin develop normally but exhibit reduced cell growth and fibronectin matrix assembly in vitro," Cancer Research, 1 October 2002, pages 5603-5610, vol. 62.	
	43	ANDREW GRIFFITHS ET AL., "Isolation of high affinity human antibodies directly from large synthetic repertoires," The EMBO Journal, 1994, pages 3245-3260, vol. 13, no. 14.	
	44	Dario NERI et al., "Targeting by affinity-matured recombinant antibody fragments of an angiogenesis associated fibronectin isoform", Nature Biotechnology, Vol. 15, November 1997, pages 1271-1275	
	45	Dario NERI et al., "Affinity reagents against tumour-associated extracellular molecules and newforming vessels," Advanced Drug Delivery Reviews, 6 April 1998, pages 43-52, vol. 31, no. 1-2, XP002124780, pages 46, right-hand column, page 49, left-hand column.	
	46	PINI, A., et al., "Design and use of a phage display library. Human antibodies with subnanomolar affinity against a marker of angiogenesis eluted from a two-dimensional gel," Journal of Biological Chemistry, August 21, 1998, pages 21769-21776, Vol. 273, no. 34, XP002124781.	
	47	VITI F. ET AL., "Increased Binding Affinity and Valence of Recombinant Antibody Fragments Lead to Improved Targeting of Tumoral Angiogenesis," Cancer Research, 15 January 1999, pp. 347-352, vol. 59, no. 2, XP002124782, the whole document.	
	48	R. FATTORUSSO ET AL., "NMR structure of the human oncofetal fibronectin ED-B domain, a specific marker for angiogenesis", 15 April 1999, Structure, pp. 381-390, vol. 7, no. 4, XP002124783.	
	49	TARLI L ET AL., "A high-affinity human antibody that targets tumoral blood vessels," Blood, 1 Jul 1999, pages 192-8, vol. 94, no. 1, XP002124784.	
	50	M. ZALUTSKY ET AL., "Labeling monoclonal antibodies and F(ab')2 fragments with the alpha-particle-emitting nuclide astatine-211: preservation of immunoreactivity and in vivo localization," Proceedings of the National Academy of Sciences in the U.S.A., September 1989, vol. 86, no. 18, pages 7149-7153, XP002172060, Washington DC, USA, abstract.	
	51	S. LINDEGREN ET AL., "Chloramine-T in high-specific-activiity radioiodination of antibodies using N-succinimidyl-3-(trimehtylstannyl)benzoate as an intermediate," Nuclear Medicine and Biology, October 1998, pages 659-665, vol. 25, no. 7, XP004149436, Oxford, GB, abstract.	
	52	M. BIRCHLER ET AL., "Selective targeting and photocoagulation of ocular angiogenesis mediated by a phage-derived human antibody fragment," Nature Biotechnology, October 1999, pages 984-988, vol. 17, no. 10, XP002172061, New York, NY, USA, the whole document.	
	53	PATRIZIA CASTELLANI et al., "The Fibronectin isoform containing the ED-B Oncofetal domain: A marker of angiogensis," Int. J. Cancer, 1 December 1994, pages 612-618, vol. 54.	
		LUCIANO ZARDI, et al., "Transformed human cells produce a new fibronectin isoform by preferential alternative splicing of a previously unobserved exon", The Embo Journal, Vol. 6, No. 8, August 1987, pages 2337-2342	

6	Y =	ζζ ₉	<u>, </u>
E FE	808	2005	OFFICE .
WHAT.	0 . c	EMA	*
	Barba	ara C	٩RI

<u>.~</u>	* TRADEME	
	Barbara CARNEMOLLA, et al., "Phage antibodies with pan-species recognition of the oncofoetal angiogenesis marker fibronectin ED-B domain," International Journal of Cancer, Vol. 68, No. 3, November 4, 1996, pages 397-405	
56	ZANG, et al., "Antibody Specific for Extra Domain B of Fibronectin Demonstrates Elevated Levels of Both Extra B(+) and B(-) Fibronectin in Osteoarthritic Canine Cartilage" Matrix Biology Vol. 14 (1994), pp. 623-633	
57	PETERS, "Expression of the alternatively spliced EIIIB segment of fibronectin," Cell Adhesion and Communication, vol. 3, no. 1, pages 67-89, 1995, XP002042097.	
58	Carnemolla, et al., "The Inclusion of the Type III Repeat ED-B in the Fibronectin Molecule Generates Conformationals That Unmask a Cryptic Sequence" The Journal of Biological Chemistry, (1992) Vol. 267, No. 34, pp. 24689-24692.	
59	Judah FOLKMAN, "Angiogenesis in cancer, vascular, rheumatoid and other disease", Nature Medicine, Vol. 1, Number 1, 1995, pages 27-31	
60	Renata PASQUALINI et al., "α-Vintegrins as receptors for tumor targeting by circulating ligands", Nature Biotechnology, Vol. 15, June 1997, pages 542-546.	
61	Michael S. O'REILLY et al., "Angiostatin induces and sustains dormancy of human primary tumors in mice", Nature Medicine, Vol. 12, Number 6, June 1996, pages 689-692	
62	Xianming HUANG et al., "Tumor Infarction in Mice by Antibody-Directed Targeting of Tissue Factor to Tumor Vasculature", Science, Vol. 275, January 24, 1997, pages 547-550	2
63	Dario NERI et al., "Biophysical methods for the determination of antibody-antigen affinities", Tibtech (Vol. 14), December 1996, pages 465-470	
64	E. Sally WARD et al., "Binding activities of a repetoire of singe immunoglobulin variable domains secreted from <i>Escherichia coli</i> , Nature, Vol. 341, No. 6242, October 12, 1989, pages 544-546.	
65	Robert E. BIRD et al., "Single Chain Antigen-Binding Proteins", Science, Vol. 242, October 21, 1988, pages 423-426.	
66	James S. HUSTON, et al., "Protein engineering of antibody binding sites: Recovery of specific activity in an anti-digoxin single-chain Fv analogue produced in <i>Escherichia coli</i> ", Proc. Natl. Acad. Sci. USA, Vol. 85, August 1988, pages 5879-5883	
67	Philipp HOLLIGER, et al., "'Diabodies': Small bivalent and bispecific antibody fragments", Proc. Natl. Acad. Sci. USA, Vol. 90, July 1993, pages 6444-6448	
68	Philipp HOLLIGER, et al., "Engineering bispecific antibodies", Current Opinion in Biotechnology, Vol. 4, No. 4, 1993, pages 446-449	
69	Dario NERI et al., "High-affinity Antigen Binding by Chelating Recombinant Antibodies (CRAbs)", Journal of Molecular Biology, Vol. 246, No. 3, February 4, 1995, pages 367-373	
70	Cyrus CHOTHIA, et al., "Canonical Structures for the Hypervariable Regions of Immunoglobulins", Journal of Molecular Biology, Vol. 196, No. 4, August 20, 1987, pages 901-917	
71	D. NERI, et al., "Multipurpose High Sensitivity Luminescence Anaylzer (LUANA): Use in Gel Electrophoresis", Biotechniques, Vol. 20, No. 4, April 1996, pages 708-712	
72	lan M. TOMLINSON, et al., "The Repertoire of Human Germline V _H Sequence Reveals about Fifty Groups of V _H Segments with Different Hypervariable Loops", Academic Press, Vol. 227, No. 3, October 5, 1992, pages 776-798	
73	Johnathan P. L. COX, et al, "A directory of human germ-line V _x segments reveals a strong bias in their usage", European Journal of Immunology 4/1994, pages 827-836	
74	James D. MARKS, et al., "By-passing Immunization Human Antibodies from V-gene Libraries Displayed on Phage", Journal of Molecular Biology", Vol. 222, No. 3, December 5, 1991, pages 581-597	
75	Tim CLARKSON, et al., "Making antibody fragments using phage display libraries", Nature, Vol. 352, August 15, 1991, pages 624-628	
76	Hennie R. HOOGENBOOM, et al., "Multi-subunit proteins on the surface of filamentous phage: methodologies for displaying antibody (FAB) heavy and light chains", Nucleic Acids Research, Vol. 19, No. 15, August 11, 1991, pages 4133-4137	

. (FEB 0 8 2005 US	
E.	LEB 0 8 5002 FG	
- X	et al., "Radioactive labeling of recombinant antibody fragments by	
78	Robert SCHIER, et al., "Identification of functional and structural amino-acid residues by parsimonious mutagenesis" Gene, Vol. 169, (1996), No. 2, pages 147-155	
79	Wataru ITO, et al., "Mutations in the Complementarity-determining Regions do not cause Differences in Free Energy during the Process of Formation of the Activated Complex between an Antibody and the Corresponding Protein Antigen", Journal of Molecular Biology, Vol. 248, No. 4, May 12, 1995, pages 729-732	
80	C. HAMERS-CASTERMAN, et al., "Naturally occurring antibodies devoid of light chains", International Weekly Journal of Science, Vol. 363, NO. 6428, June 3, 1993, pages 446-448	
81	U. JÖNSSON, et al., "Real-Time Biospecific Interaction Analysis Using Surface Plasmon Resonance and a Sensor Chip Technology", Biotechniques, Vol. 11, No. 5, November 1991, pages 620-627	
82	Ahuva NISSIM, et al., "Antibody fragments from a 'single pot' phage display library as immunochemical reagents", The Embo Journal, Vol. 13, No. 3, February 1, 1994, pages 692-698	
83	Alssandro PINI, et al., "Hierarchical affinity maturation of a phage library derived antibody for the selective removal of cytomegalovirus from plasma", Journal of Immunological Methods, Vol. 206, nos-1-2, 1997, pages 171-182	
84	Daniel R. DEAVER, "A new non-isotopic detection system for immunoassays", Nature, Vol. 377, No. 6551, October 26, 1995, pages 758-760	l
85	Matsuura H., Takio K., Titani K., Greene T., Levery SB, Salyan ME, Hakomori S., J. Biol. Chem. <u>263</u> , 3314-3322, "The oncofetal structure of human fibronectin defined by monoclonal antibody FDC-6. Unique structural requirement for the antigenic specificity provided by a glycosylhexapeptide", March 1988. Abstract Only	
86	Zheng, M.ET AL., Int. J. Pept. Protein Res., <u>43</u> , 230-8, "Synthetic immunochemistry of glycohexapeptide analogues characteristic of oncofetal fibronectin. Solid-phase synthesis and antigenic activity"; March 1994. Abstract Only	
87	Feinberg, RF, Kliman HJ, Bedian V, Monzon-Bordonaba F, Menzin AW, Wang CL; Am. J. Obstet. Gynecol <u>172</u> , 1526-1536; "Monoclonal antibody X18A4 identifies an oncofetal fibronectin eptiope distinct from the FDC-6 binding site"; May 1995. Abstract Only	
88	Paul K. Schick, Carol M. Wojenski, Vickie D. Bennett, and Tamara Ivanova; "The Synthesis and Localization of Alternatively Spliced Fibronectin EIIIB in Resting and Thrombin-Treated Megakaryocytes"; Blood, Vol. 87, No. 5, March 1, 1996; pp. 1817-1823	
89	Denise G. White, James W. Hall, David W. Brandli, Amy L. Gehris, and Vickie D. Bennett; "Chick Cartilage Fibronectin Differs in Structure from the Fibronectin in Limb Mesenchyme"; 1996; Exp. Cell Res. 224, pp. 391-402	
90	DATABASE WPI Week 9017 Derwent Publications Ltd., London, GB; AN 90-128252 XP002042103 & JP 02 076 598 A (FUJITA GAKUEN ET AL.), 15 March 1990	
91	DATABASE WPI Week 9231 Derwent Publications Ltd., London, GB; AN 92-253398 XP002042104 & JP 04 169 195 A (FUJITA GAKUEN ET AL.), 17 June 1992	
	ASHLEY PUBLICATIONS LTD., "Antibodies to the ED-B domain of fibronectin, their constructs and uses," Medical Research Council, ISSN 1354-3776, Patent Evaluation; WO 9745544; Exp. Opin. Ther. Patents (1998), 8(7):907-910.	
	MARIANI ET AL., "Tumor Targeting Potential of the Monoclonal AntibodyvBC-1 against Oncofetal Fibronectin in Nude Mice Bearing Human Tumor Implants," The American Cancer Society, 15 December 1997, pp. 2378-2384, vol. 80, no. 12.	
94	DARIO NERI ET AL., "Antibodies from phage display libraries as immunochemical reagents," Methods in Molecular Biology, Immunochemical protocols, 2 nd ed., pp. 475-500, vol. 80. BIRCHLER ET AL., "Infrared photodetection for the in vivo localisation of phage-derived	
95	antibodies directed against angiogenic markers," Journal of Immunological Methods, 1999, pages 239-248, vol. 231.	
90	FREDRIK NILSSON ET AL., "The use of phage display for the development of tumour targeting agents," Advanced Drug Delivery Reviews, 2000, pages 165-196, vol. 43.	
97	FREDRIK NILSSON ET AL., "Targeted Delivery of Tissue Factor to the ED-B Domain of Fibronectin, a Marker of Angiogenesis, Mediates the Infarction of Solid Tumors in Mice," Cancer Research, 15 January 2001, pages 711-716, vol. 61.	

, Ve	HALINET AL., "Antibody-based targeting of Angiogenesis," Critical Reviews in Therapeutic	
98	HALIN ET AL., "Antibody-based targeting of Angiogenesis," Critical Reviews in Therapeutic	
90	Drug Carriers Systems, 2001, pages 299-339, vol. 28, no. 3.	
	LEONARDO GIOVANNONI ET AL., "Isolation of anti-angiogenesis antibodies from a large	
99		
	5, e27.	
100	SALVATORE DEMARTI ET AL., "Selective targeting of tumour neovasculature by a radiohalogenated human antibody fragment specific for the ED-B domain of fibronectin,"	
100	European Journal of Nuclear Medicine, April 2001, short communication, vol. 28, no. 4.	
	BARBARA CARNEMOLLA ET AL., "Enhancement of the antitumor properties of interleukin-2	
101	by its targeted delivery to the tumor blood vessel extracellular matrix," Hemostatis,	
	Thrombosis, and Vascular Biology, Blood, 1 March 2002, pages 1659-1665, vol. 99, no. 5.	
	HALIN ET AL., "Enhancement of the antitumor properties of interleukin-12 by its targeted	
102	delivery to the tumor blood vessel extracellular matrix," Nature Biotechnology, March 2002,	
	pages 264-269, vol. 20.	
	C MARTY ET AL., "Cytotoxic targeting of F9 teratocarcinoma tumours with anti-ED-B	
103	fibronectin scFv antibody modified liposomes," British Journal of Cancer, 2002, pages 106-	
	112, vol. 87, Cancer Research UK.	
404	SAMU MELKKO ET AL., "An antibody-calmodulin fusion protein reveals a functioncal	
104	dependence between macromolecular isoelectric point and tumor targeting performance,"	
	Int. J. Radiation Oncology Biol. Phys., 2002, pages 1485-1490, vol. 54, no. 5. PATRIZIA CASTELLANI ET AL., "Differentiation between High- and Low-Grade Astrocytoma	
	Using a Human Recombinant Antibody to the Extra Domain-B of Fibronectin," American	
105	Journal of Pathology, November 2002, 1695-1700, vol. 161, no. 5, American Society for	
	Investigative Pathology.	
	L BORSI ET AL., "Selective Targeting of Tumoral Vasculature: Comparison of Different	
106	Formats of an Antibody (L19) to the ED-B Domain of fibronectin," Int. J. Cancer, 2002, pages	
	75-85, vol. 102.	
	M SANTIMARIA ET AL., "Immunoscintigraphic Detection of the ED-B Domain of Fibronectin,	
107	a Marker of Angiogenesis, in Patients with Cancer," Clinical Cancer Research, February	
	2003, pages 571-579, vol. 9.	
100	J SCHEUERMANN ET AL., "Discovery and ivestigation of lead compounds as binders to the extra-domain B of the angiogenesis marker, fibronectin," Drug Development Research, 2003,	
100	pages 268-282, vol. 58.	
	HALIN ET AL., "Synergistic therapeutic effects of a tumor targeting antibody fragment, fused	
109	to interleukin 12 and to tumor necrosis factor α ," Cancer Research, 15 June 2003, pages	
	3202-3210, vol. 63.	
	L BORSI ET AL., "Selective targeted delivery of TNFα to tumor blood vessels," Blood First	
110	Edition Paper, prepublished online 21 August 2003, American Society of Hematology, DOI	
	10.1182/blood-2003-04-1039.	
111	M NICOLO ET AL., "Expression of Extradomain-B-containing Fibronectin in Subretinal	
	Choroldal Neovascular Membranes, 2003, Elsevier Science Inc.	
112	F VITI ET AL., "Recombinant antibodies for the selective targeting of tumor neovasculature,"	
-	Current Opinion in Drug Discovery & Development, 2002, pages 204-213, vol. 5, no. 2.	
113	F VITI ET AL., "Phage display libraries as a source of tumour-targeting agents," Chimia, 2001, pages 206-211, vol. 55, ISSN 0009-4293, The Academic Polymer Scene in	
	Switzerland.	
	D NERI ET AL., Edited by P. RIVA, "New Approaches to Tumour Targeting," Cancer	
114	Radioimmunotherapy: Present and Future, Nuclear Medicine Department, Hospital "M.	
	Bufalini," Cesena, Italy, Harwood academic publishers.	
	M BIRCHLER ET AL., "Expression of the extra domain B of fibronectin, a marker of	
115	angiogenesis, in head and neck tumors," Laryngoscope, July 2003, pages 1231-1237, vol.	
	113.	
	ALAN L. EPSTEIN, et al., "Identification of a Monoclonal Antibody, TV-1, Directed against the	
116	Basement Membrane of Tumor Vessels, and Its Use to Enhance the Delivery of	
	Macromolecules to Tumors after Conjugation with Interleukin 2," Cancer Research 55, pages 2673-2680, June 15, 1995.	
	J PETERS ET AL., "Fibronectin Isoform Distribution in the Mouse: II. Differential Distribution	
117	of the Alternatively Spliced EIIIB, EIIIA, AND V Segments in the Adult Mouse," Cell Adhesion	
'''	and Communication, 1996, pages 127-148, vol. 4, no. 2.	
	Chevalier, X., et al., "Increased expression of Ed-B-Containing fibronectin (an embryonic	
118	isoform of fibronectin) in human osteoarthritic cartilage," British Journal of Rheumatology,	
	Vol. 35(5), pages 407-415, (abstract only)	
	Chevalier, X., et al., "Presence of ED-A containing Fibronectin in human articular cartilage	
119	from patients with osteoarthritis and rheumatoid arthritis," Journal of Rheumatology, Vol.	
L	23(6), pages 1022-1030, June 1996	

120	Reukoulis 100, et al., "Immunolocalization of cellular fibronectins in the normal liver, cirrhosis, and flepatocellular carcinomea," Ultrastructural pathology, JanFeb. 1995, Vol. 19(1), pages 37-43
121	Moyano, JV, et al., "Fibronectin type III5 repeat contains a novel cell adhesion sequence, KLDAPT, which binds activated α4β1 and α4β7 integrins," Journal of Biological Chemistry, Oct. 3, 1997, Vol. 272(40), pages 24832-24836
1	Yu, J L, et al., "Fibronectin exposes different domains after adsorption to a heparinized and an unheparinized poly(vinyl chloride) surface," Biomaterial, March 1997, Vol. 18(56), pages 421-427
123	Borsi, L., et al., "Preparation of phage antibodies to the ED-A domain of human fibronectin," Exp. Cell Res., May 1, 1998, Vol. 240(2), p. 244-251
124	KACZMAREK, J ET AL., Int. J. Cancer, vol. 58, pages 11-16, 1994.
125	KIRKHAM, PM ET AL., J. Mol. Biol., 1999, pages 909-915, vol. 285.
126	MANABE, RI-ICHIROH ET AL., Journal of Cell Biology, vol. 139(1), pages 295-307, October 6, 1997.
127	MARDON, H J ET AL., Journal of Cell Science, vol. 104, pages 783-792, 1993.
128	MENZIN, A W et al. Cancer 1998, vol. 82, pages 152-158.
129	PAOLELLA, GIOVANNI E TAL, Nucleic acids research, vol. 16(8), pages 3545-3557, 1988.
130	STAFFA, A ET AL., The Journal of Biological Chemistry, 272(52), pages 33394-33401, December 1997.
131	VARTIO, T ET AL., "Differential expression of the ED sequence-containing form of cellular fibronectin in embryonic and adult human tissues," Journal of cell science, vol. 88, pages 419-430, 1987.
132	UEDA, YASUO ET AL., "Selective Distribution of Fibronectin to a Tumor-Cell Line," Cancer Letters, vol. 31, pages 261-265, 1986.
133	G MARIANI ET AL., "A pilot pharmacokinetic and immunoscintigraphic study with the technetium-99m-labeled monocolonal antibody BC-1 directed against oncofetal fibronectin in patients with brain tumors," Cancer, 15 Dec 1997, pages 2484-9, vol. 80, suppl. 12, ISSN: 0008-543X, Journal code: CLZ, abstract, USA.
134	CARNEMOLLA et al., Journal of Cell Biology, vol. 108, pages 1139-1148, 1989.

Signature Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

Date

Examiner

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.